

## **Vermont Mental Health Performance Indicator Project**

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### MEMORANDUM

TO: Vermont Mental Health Performance Indicator Project  
Advisory Group and Interested Parties

FROM: John Pandiani and Koushik Ghosh

DATE: November 21, 2003

RE: Emergency Room Injury Victims served by Community Mental Health Programs

This is the second in a series of PIPs examining utilization of community mental health programs by trauma victims. The first in this series focused on the representation of identified trauma victims among children and adolescents served by community mental health Children's Services programs([www.state.vt.us/dmh/Data/PIPs/2003/pip103103.pdf](http://www.state.vt.us/dmh/Data/PIPs/2003/pip103103.pdf) ). This week's PIP focuses on the proportion of individuals who are treated for injuries in hospital emergency rooms (ER) who are also served by one of Vermont's public community mental health programs. Conceptually, this can be considered to be a study of access to care for a high risk population. An overview of rates of access to community mental health programs in Vermont for 1985 through 2003 is available at ([www.state.vt.us/dmh/Data/PIPs/2003/pip101703.pdf](http://www.state.vt.us/dmh/Data/PIPs/2003/pip101703.pdf))

Data for this analysis were drawn from two sources. Information regarding emergency room utilization was obtained from the Vermont Department of Health. These data include the date of birth, gender, and region of residence of each person served, and an external cause code (E-code) for all injury-related emergency room visits in Vermont or New Hampshire by Vermont residents during January through December 2001. For purposes of this analysis, injuries have been categorized into four broad groups: unintentional injuries, injuries that were the result of assault, self-injuries, and other injuries. A listing of the specific E-codes that fall into each of these categories is available in the STIPDA Consensus Recommendation for Using Hospital Discharge Data for Injury Surveillance (<http://stipda.org/s-pubs/hdd.pdf>). Data regarding public mental health caseloads were obtained from Vermont's Monthly Service Report database. This database includes detailed client level data for all individuals served in community mental health centers in Vermont during July 2001 through June 2002. The data used in this analysis includes the date of birth, gender, and region of residence of each person served. Because the data sets used in this analysis do not share unique person identifiers, Probabilistic Population Estimation was used to determine the unduplicated number of individuals who appeared in both the mental health and the emergency room data sets. This caseload overlap, divided by the unduplicated number of individuals who received injury related ER services is the percent of the injured individuals who received public mental health services.

As you will see, unintentional injuries were the most common, with more than 43,000 individuals treated in emergency rooms. Of these, 7% received community mental health services. Women and children used community mental health programs at similar rates (8% and 10%,

respectively). The rate for men was significantly lower (4%). Among adults, individuals in the 50+ age group were less likely than individuals in the 18-35 or 35-49 age groups to receive community mental health services (4% vs. 7%).

More than 1,100 assault victims were treated in emergency rooms. More than 20% of these individuals received community mental health services. Once again, women and children used community mental health programs at similar rates (about 29% each). The rate for men was significantly lower (11%). There were no significant differences among assault victims in different adult age groups in their rates of utilization of community mental health services.

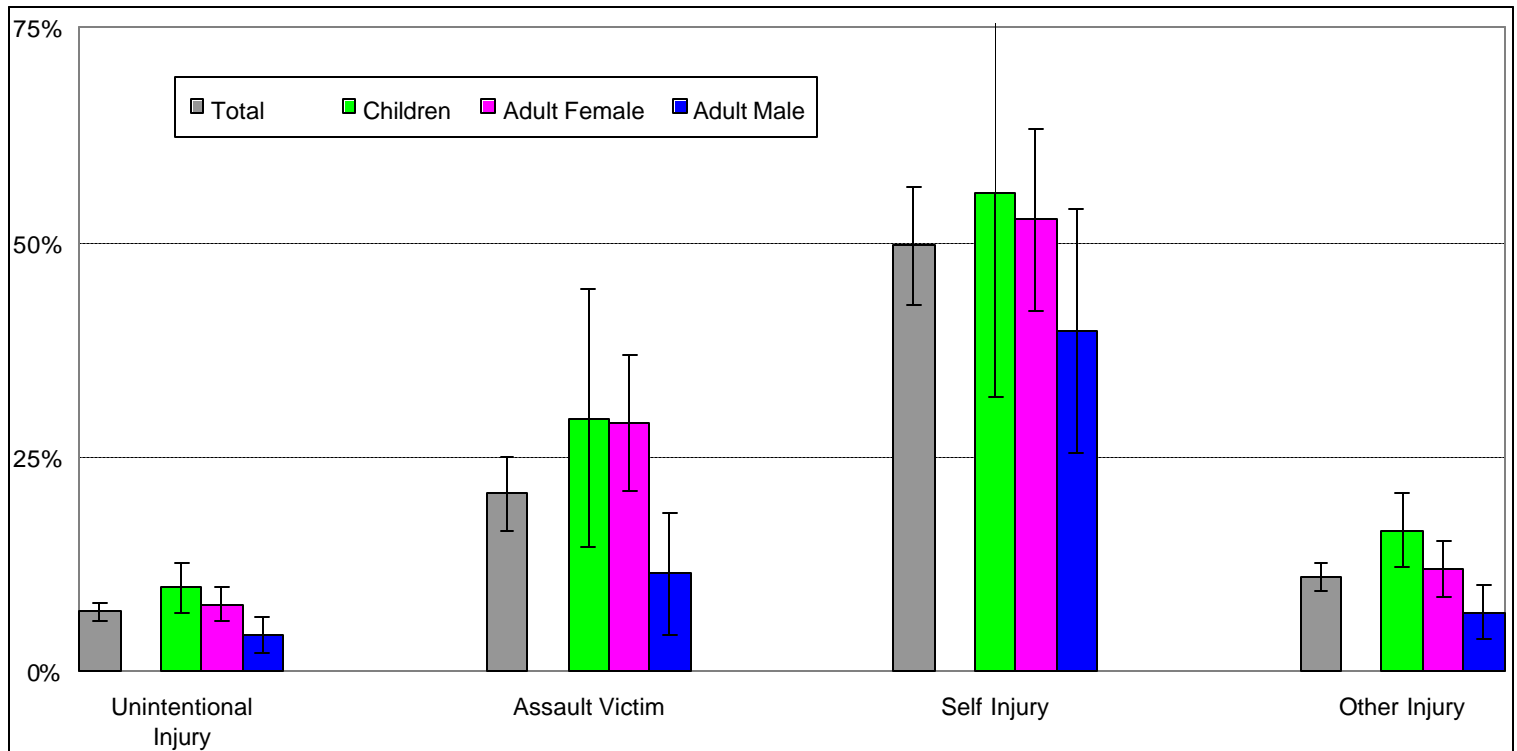
Victims of self-injury were the smallest injury category, with about 300 individuals treated in emergency rooms. Almost 50% of these individuals received community mental health services. Once again, women and children used community mental health programs at similar rates (53% and 56% respectively). The rate for men was 40%. There were no significant differences among self injury victims in different adult age groups in their rates of utilization of community mental health services.

Finally, more than 10,000 individuals were treated for injuries with other or unknown causes. Of these individuals, 11% received community mental health services. In this group, children had the highest utilization of community mental health programs (17%), followed by women (12%) and men (7%). People in the 50+ age group who were treated for other injuries were less likely than others to receive community mental health services.

We intend to pursue answers to two next questions regarding these findings. First, “How do rates of utilization of community mental health services for injury victims compare to rates for the general population?” and, second, “How many of these injury victims were identified as trauma victims in the community mental health program information systems?”.

We will welcome your suggestions for further analysis of these data, your questions and comments about the findings reported here, and any suggestions you have regarding other data sets that could be useful to this project. As always, you can reach us at [pip@ddmhs.state.vt.us](mailto:pip@ddmhs.state.vt.us) or 802-241-2638.

## Utilization of Community Mental Health Services By Individuals with Emergency Room Treatment for Injury



Individuals Receiving Emergency Room Treatment for :								
	Unintentional Injury		Assault Victim		Self Injury		Other Injury	
	Total #	% with MH Services	Total #	% with MH Services	Total #	% with MH Services	Total #	% with MH Services
Total	43,386 + 348	7% + 1%	1,127 + 11	21% + 4%	302 + 3	50% + 7%	10,335 + 71	11% + 2%
Children	12,141 ± 204	10% ± 3%	203 ± 4	30% ± 15%	57 ± 2	56% ± 24%	2,611 ± 36	16% ± 4%
Adult Female	14,240 + 193	8% + 2%	387 + 6	29% + 8%	162 + 3	53% + 11%	3,504 + 42	12% + 3%
Adult Male	17,004 ± 289	4% ± 2%	537 ± 9	11% ± 7%	84 ± 1	40% ± 14%	4,220 ± 56	7% ± 3%
Age 18-35	13,651 + 227	7% + 2%	642 + 9	17% + 5%	139 + 2	40% + 9%	3,306 + 46	10% + 3%
Age 35-49	9,207 + 146	7% + 2%	224 + 3	24% + 8%	87 + 2	61% + 10%	2,478 + 35	10% + 3%
Age 50+	8,387 ± 80	4% ± 1%	57 ± 1	20% ± 10%	19 ± 1	48% ± 11%	1,941 ± 18	7% ± 2%

Emergency room treatment data were obtained from the Vermont's Hospital Discharge data set maintained by the Department of Health and includes injury-related ER visits based on ICD Diagnosis codes(<http://stipda.org/s-pubs/hdd.pdf>) for Vermont residents in Vermont and New Hampshire emergency rooms during January through December 2001. Community mental health data were obtained from Vermont's Monthly Service Report database and includes all individuals served by community mental health program during July 2001 through June 2002. Children include individuals under 18 years of age. Adult residents include individuals 18 or over. Because these data sets do not share unique person identifiers, Probabilistic Population Estimation was used to determine caseload size and overlap (with 95% confidence intervals).